

6575/PCT/tat



"PATENT APPLICATION"

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re Application of

ANGELO BENVENUTI ET AL

Appeal No.

U.S. Serial No. 10/541,874

Group Art Unit 3724

Filed: July 11, 2005

Laura M. Lee, Examiner

DEVICE AND METHOD FOR ELIMINATING
TRIMMINGS FROM SERIES OF PRODUCTS,
SUCH AS ROLLS OR THE LIKE

Alexandria, Virginia
November 30, 2010

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

B R I E F O N A P P E A L

Dear Sir:

This appeal is from the action of the Primary Examiner mailed March 30, 2010 finally rejecting claims 1, 4-12, 15, 17-24, 26, 44 and 47-54 of the application.

Real Party In Interest

The named inventors of the captioned application have assigned their entire rights to Fabio Perini S.p.A., a corporation organized under the laws of Italy, located in

6575/USSN 10/541,874
Group Art Unit 3724

Lucca, Italy. The real party in interest is Fabio Perini S.p.A.

Related Appeals And Interferences

No appeal or interference is known to applicants which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

Status Of Claims

The claims pending in this application are claims 1, 4-12, 15, 17-24, 26, 44 and 47-54. Claims 2-3, 13-14, 16, 27-43 and 45-46 are canceled. Claim 25 is withdrawn. Claims 1, 48-51 and 53 are the independent claims. Claims 1, 4-12, 15, 17-24, 26, 44 and 47-54 are rejected. Accordingly, the appealed claims are claims 1, 4-12, 15, 17-24, 26, 44 and 47-54 as set forth in the Claims Appendix attached hereto.

Status Of Amendments

An Amendment After Final Rejection was filed September 28, 2010 in response to the final official action mailed March 30, 2010 rejecting claims 1, 4-12, 15, 17-24,

6575/USSN 10/541,874
Group Art Unit 3724

26, 44 and 47-54. The Amendment After Final Rejection proposed a new claim 55 which was a combination of claims 1, 4 and 5. No other amendment to the claims was proposed. An Advisory Action was mailed October 13, 2010 wherein the examiner stated that the Amendment After Final Rejection was considered but does not place the application in condition for allowance because the amendment raised new issues that would require further consideration and/or search and that the amendment will not be entered for the purpose of appeal.

Summary Of Claimed Subject Matter

Claim 1 claims a device to eliminate trimmings or scraps from series of products (page 4, lines 5-6; Figures 1-4, Ref. No. 1) comprising an input member for the products (page 10, lines 21-22; Figures 1-4, Ref. No. 9); an output member for the products (page 10, lines 6-8; Figures 1-4, Ref. No. 7); at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another (page 4, lines 12-14; page 5, lines 3-5; page 11, lines 12, 18-20, 25-28; Figures 1-4, Ref. Nos. 23, 29), a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall (page 5, lines 5-6; page 11, lines 25-28; Figures 1-4);

at least one stationary longitudinal lower supporting element of the products, parallel to said movable upper flexible member and bridging said input member and said output member (page 4, lines 14-15; page 5, lines 6-7; page 10, line 32; page 11, lines 11-12; Figures 1-4, Ref. No. 21), an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to said output member (page 5, lines 8-10; page 10, line 31-page 11, line 1); at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element (page 5, lines 10-12; Figures 2-4, Ref. No. 11); wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products (page 4, lines 16, 28-31; page 5, lines 13-15).

Claim 48 claims a device to eliminate trimmings or scraps from series of products (page 4, lines 5-6; Figures 1-4, Ref. No. 1) comprising an input member for the

products (page 10, lines 21-22; Figures 1-4, Ref. No. 9); an output member for the products (page 10, lines 6-8; Figures 1-4, Ref. No. 7); at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another (page 4, lines 12-14; page 5, lines 3-5; page 11, lines 12, 18-20, 25-28; Figures 1-4, Ref. Nos. 23, 29), a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall (page 5, lines 5-6; page 11, lines 25-28; Figures 1-4); at least one stationary longitudinal lower supporting element of the products, parallel to said movable upper flexible member and bridging said input member and said output member (page 4, lines 14-15; page 5, lines 6-7; page 10, line 32; page 11, lines 11-12; Figures 1-4, Ref. No. 21), an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to said output member (page 5, lines 8-10; page 10, line 31-page 11, line 1); at least one pusher to insert the series of products with respective trimmings between said flexible member and said

6575/USSN 10/541,874
Group Art Unit 3724

longitudinal lower supporting element (page 5, lines 10-12; Figures 2-4, Ref. No. 11); wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products (page 4, lines 16, 28-31; page 5, lines 13-15); and wherein at least one of said contact members is constructed and arranged to cyclically mechanically grip and release at least a last product of said series of products (page 6, lines 4-10, 20-21; page 7, lines 6-10; page 17, lines 26-28).

Claim 49 claims a device to eliminate trimmings or scraps from series of products (page 4, lines 5-6; Figures 1-4, Ref. No. 1) comprising at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another (page 4, lines 12-14; page 5, lines 3-5; page 11, lines 12, 18-20, 25-28; Figures 1-4, Ref. Nos. 23, 29), a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall (page 5, lines 5-6; page 11, lines 25-28; Figures 1-4); at least one stationary longitudinal lower supporting element of the products, parallel to said movable upper flexible member (page 4,

lines 14-15; page 5, lines 6-7; page 10, line 32; page 11, lines 11-12; Figures 1-4, Ref. No. 21), an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to an output member (page 5, lines 8-10; page 10, line 31-page 11, line 1); at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element (page 5, lines 10-12; Figures 2-4, Ref. No. 11); wherein said flexible member is controlled with a cyclically variable speed such that every time a new series of products is introduced into the device said section of said flexible member devoid of contact members is caused to be phased with positioning of tail and head trimmings of two consecutive series of products (page 4, lines 24-31; page 5, lines 13-15).

Claim 50 claims a device to eliminate trimmings or scraps from series of products (page 4, lines 5-6; Figures 1-4, Ref. No. 1) comprising at least one continuous movable upper flexible member carrying a series of contact members

6575/USSN 10/541,874
Group Art Unit 3724

for the products aligned with one another (page 4, lines 12-14; page 5, lines 3-5; page 11, lines 12, 18-20, 25-28; Figures 1-4, Ref. Nos. 23, 29), a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall (page 5, lines 5-6; page 11, lines 25-28; Figures 1-4); at least one stationary longitudinal lower supporting element of the products, parallel to said movable flexible member (page 4, lines 14-15; page 5, lines 6-7; page 10, line 32; page 11, lines 11-12; Figures 1-4, Ref. No. 21), an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to an output member (page 5, lines 8-10; page 10, line 31-page 11, line 1); at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element (page 5, lines 10-12; Figures 2-4; Ref. No. 11); wherein said flexible member is controlled with a cyclically variable speed such that every time a new series of products is introduced into the device said section of said flexible

member devoid of contact members is caused to be phased with positioning of tail and head trimmings of two consecutive series of products (page 4, lines 24-31; page 5, lines 13-15); and wherein at least one of said contact members is constructed and arranged to cyclically mechanically grip and release at least a last product of said series of products (page 6, lines 4-10, 20-21; page 7, lines 6-10; page 17, lines 26-28).

Claim 51 claims a device to eliminate trimmings or scraps from series of products (page 4, lines 5-6; Figures 1-4, Ref. No. 1) comprising an input member for the products (page 10, lines 21-22; Figures 1-4, Ref. No. 9); an output member for the products (page 10, lines 6-8; Figures 1-4, Ref. No. 7); at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another (page 4, lines 12-14; page 5, lines 3-5; page 11, lines 12, 18-20, 25-28; Figures 1-4, Ref. Nos. 23, 29), a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall (page 5, lines 5-6; page 11, lines 25-28; Figures 1-4); at least one longitudinal stationary lower supporting element of the products, parallel to said movable upper flexible member and bridging said input member and said

output member (page 4, lines 14-15; page 5, lines 6-7; page 10, line 32; page 11, lines 11-12; Figures 1-4, Ref. No. 21), an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to an output member (page 5, lines 8-10; page 10, line 31-page 11, line 1); at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element (page 5, lines 10-12; Figures 2-4, Ref. No. 11); wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products (page 4, lines 16, 28-31; page 5, lines 13-15).

Claim 53 claims a device to eliminate trimmings or scraps from series of products (page 4, lines 5-6; Figures 1-4, Ref. No. 1) comprising an input member for the products (page 10, lines 21-22; Figures 1-4, Ref. No. 9); an output member for the products (page 10, lines 6-8; Figures 1-4, Ref. No. 7); at least one continuous movable upper flexible member carrying a series of contact members for the products

aligned with one another (page 4, lines 12-14; page 5, lines 3-5; page 11, lines 12, 18-20, 25-28; Figures 1-4, Ref. Nos. 23, 29), a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall (page 5, lines 5-6; page 11, lines 25-28; Figures 1-4), said movable upper flexible member having a leading contact member structured to grip at least a first product of each series of products and advance the first product from the input member to the output member, said leading contact member being adjacent to said series of contact members (page 5, lines 18-22; page 11, lines 25-26; page 12, line 19; Figures 1-4, Ref. No. 29A); a control device in relation to said movable upper flexible member which controls said leading contact member (page 12, lines 10-15, 20-22; Figures 1-4, Ref. No. 37); at least one stationary longitudinal lower supporting element of the products positioned parallel to said movable upper flexible member and bridging said input member and said output member (page 4, lines 14-15; page 5, lines 6-7; page 10, line 32; page 11, lines 11-12; Figures 1-4, Ref. No. 21), said movable upper flexible member and said stationary longitudinal lower supporting element being essentially aligned such that the series of products advance in contact with and supported during

elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element (page 5, lines 8-10; page 10, line 31-page 11, line 1); at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element and towards said output member (page 5, lines 10-12; Figures 2-4, Ref. No. 11); wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products which said upper flexible member contacts (page 4, lines 16, 28-31; page 5, lines 13-15).

Grounds Of Rejection To Be Reviewed On Appeal

The grounds of rejection of the present appeal are:

- (1) Claims 1, 4-11, 15, 17-19, 24, 26 and 47-54 under 35 U.S.C. §103(a) over U.S. Patent No. 5,458,033 (Wierschke) in view of Great Britain Application No. 2 137 918 (Perini); and
- (2) Claims 12, 20-23 and 44 under 35 U.S.C. §103(a) over Wierschke in view of Perini and further in view of U.S. Patent No. 4,033,862 (Spencer).

Argument

The pending claims are directed to a device to eliminate trimmings or scraps from series of products. The device comprises an input member for the products and an output member for the products. The device also comprises at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another. A section of the movable upper flexible member is devoid of the contact members to allow trimmings to fall. The device also comprises at least one stationary longitudinal lower supporting element of the products, parallel to the movable upper flexible member and bridging the input member and the output member. An essentially aligned position of the flexible member and of the longitudinal lower supporting element is such that the products advance in contact with and supported during elimination of the trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to the output member. The device further comprises at least one pusher to insert the series of products with respective trimmings between the flexible member and the longitudinal lower supporting element. The flexible member is controlled with a cyclically variable

speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products.

I. Rejection Of Claims 1, 4-11, 15, 17-19,
24, 26 And 47-54 Under 35 U.S.C. §103(a)
Over Wierschke In View Of Perini

Claims 1, 4-11, 15, 17-19, 24, 26 and 47-54 are patentable over Wierschke in view of Perini. Wierschke and Perini are not combinable with one another to provide applicants' claimed devices to eliminate trimmings or scraps from a series of products because each applied reference is based on a different approach to the problem of trim removal and these teachings are inconsistent with one another. Further, even upon a combination of the teachings of Wierschke and Perini, such combination does not disclose or suggest applicants' claimed devices as set forth hereafter.

A. The Wierschke Reference

Wierschke discloses a trim eliminator for a log saw for rolls of web material. As rolls R are developed, they are moved or conveyed horizontally from an upstream end to a downstream end by a mover 11. More particularly, mover 11 includes a trough means in the form of supporting rails

14, which are fixed rails, in contrast to pivotally mounted rails 15 which extend over an annulus cull opening 16. A series of pusher mechanisms 17 mounted on a continuous chain 18 advance rolls R along rails 14. The pusher mechanisms 17 extend up through a spacing between the rails 14 and advance first the log at the extreme upstream end of the horizontal path and later, after being sawed, the pushers push the rolls R toward the downstream end of the path.

Cut rolls R_U and R_D are supported over opening 16 by rails 15a and 15b (see Figures 4 and 5). A signal for opening the rails 15a and 15b comes from a master controller which pivots the rails 15a and 15b out of roll-carrying condition when suspension means 23 is actuated to suspend rolls over opening 16. The trim falls in opening 16 while the rolls R are suspended above the opening by suspension system or conveyor 23. Suspension system 23 includes two continuous belt or chain arrangements in side-by-side relation, including a first system 24 with a pad 27 and a second system made up of belts 25 and 26 which have a pad 28. Pad 28 is spaced longitudinally from pad 27 so it can contact the upper surface of a roll. (See Figures 2, 7 and 6).

The device of Wierschke is based on having an upper pneumatic gripping device which grips rolls but does not grip trims. Lower rails 15 are provided as a temporary support for the first and the last rolls of each set of rolls. The trims are removed because the trims are not gripped by the pneumatic gripping device and are not supported by the rails which are moved from a closed to an open position and maintained in the open position when the trims move along the gap between conveyor 18 and conveyor 44. Therefore, an essential teaching of Wierschke is that the rolls are gripped on the top and are not supported on the bottom, while the trims are neither gripped on the top nor supported on the bottom.

B. The Perini Reference

Perini discloses a device for removing scrap ends or trimmings R_x , R_y (see Figure 4) for cylinders B of paper cut into rolls R for toilet paper or the like by a cutter L. The rolls are advanced in an axial direction between a lower bearing guide 5 on one side and upper lugs 40 supporting each roll R and moving with the rolls R. The lugs 40 are regularly spaced to cooperate with rolls R. A gap 40X is provided to coincide with end of the cylinders where the

trimmings R_x , R_y are present so that the trimmings R_x , R_y are unsupported and fall way from guide 5.

More particularly, the device of Perini is based on moving an upper belt 38 and a lower belt 5 at the same advancing speed. Rolls are supported by the supporting elements or lugs 40 carried by the upper belt 38 and are further supported on the lower part thereof by the belt 5. In a certain position along the belt 38, the lugs 40 are missing. This position corresponds to the position of the trims. With this arrangement, trims fall down and are removed from processing because the trims are not supported at the top.

C. Claims 1, 4-11, 15, 17-19, 24, 26 And 47-54 Are Patentable Over The Applied References

The combination of Wierschke and Perini does not teach or suggest a stationary longitudinal lower supporting element as claimed. Further, the combination of Wierschke and Perini does not teach or suggest that the series of products are in contact with and supported (1) by the contact members of the flexible member and (2) by the stationary longitudinal lower supporting member as claimed.

In rejecting claims 1, 4-11, 15, 17-19, 24, 26 and 47-54, the Examiner has selected individual isolated

elements of Wierschke and Perini and has taken them out of context from the devices as a whole as described in each reference. To take these selected elements and combine them in such a way to produce a different machine (i.e., applicants' claimed device) requires inventive skill or hindsight from applicants' teachings because the teachings of Wierschke and Perini, as set forth above, are mutually exclusive. One skilled in the art would simply not take the elements selected by the Examiner from Perini and combine them with the structure of Wierschke in view of the specific teachings of each reference and the lack of other teaching. Applicants' claims are directed to entirely different devices, wherein the individual features and limitations co-act in a novel and entirely unpredictable manner. As such, the combination of Wierschke and Perini would not result in obtaining applicants' claimed device. Further, neither reference provides any suggestion to modify the devices described therein and combine the disclosure of these references to provide applicants' claimed device. This is in particular evident since applicants' claimed device includes a lower longitudinal supporting element which is stationary. The lower members 15 and 5 of Wierschke and Perini, respectively, are not stationary. In

Wierschke, the rails 15 are movable so as to be spaced apart to allow the trims to fall in the gap for removal and must then be closed again to support the first roll and the last roll of each series of rolls being processed. See, column 3, lines 30-31, 41-42, 46, and 54-58. In Perini, the lower belt 5 advances at the same speed as the upper belt 38 and at the same speed as the rolls. See, page 2, lines 63-68. Accordingly, each of the applied references lacks the teaching of a critical element of the claims and, rather, teaches against the claimed structure.

Wierschke is based on a different concept from that of Perini and, thus, it would not be obvious to combine Wierschke with Perini or modify Wierschke in view of Perini in order to obtain applicants' devices as claimed. The Examiner acknowledges at pages 3-4 of the official action mailed March 30, 2010 that -

Wierschke does not disclose at least one stationary longitudinal lower supporting element for the products, parallel to said upper movable flexible member (i.e. 24/25/26) and bridging said input and said output member (input and output conveyors); where an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during the elimination of said trimmings by the contact members (i.e. 27/28) of the flexible member and with the longitudinal lower supporting element (i.e. 15a/15b) ...

Accordingly, the Examiner acknowledges significant shortcomings of Wierschke with respect to the claimed features of applicants' devices. A combination with Perini would not result in applicants' claimed stationary longitudinal supporting element since Perini teaches a different method of trim removal from both Wierschke and applicants and does not teach or suggest this claimed feature.

Rather, Perini teaches that each roll R is supported on one side by a moving lower conveyor belt 5 and on the other side by a respective support 40 carried by an upper belt/chain 38. The lower conveyor belt 5 and the upper belt 38 move constantly at the same speed and are synchronized with the rolls R arriving from a cutting machine. The trims are not held by a respective support 40 and, thus, fall away when no longer supported. The device of Perini requires a precise synchronization between the motion of all the members involved, i.e., moving conveyor belt 5, moving chain 38, and the pusher feeding the rolls. The belt 5 and the chain 38 must be as long as the log being processed to provide the required synchronization. It is not possible to change the length of the log. This would require entire adaptation of the machine. Applicants'

claimed device does not have such limitation due to the differences in structure.

The pivotal rails of Wierschke, therefore cannot be replaced by fixed-in-place moving conveyor belts as taught by Perini. Therefore, neither Wierschke nor Perini alone or in combination disclose or suggest a stationary longitudinal lower supporting element as claimed. Further, the combination of Wierschke and Perini do not teach or suggest that the series of products are in contact with and supported (1) by the contact members of the flexible member and (2) by the stationary longitudinal lower supporting member as claimed.

The rails 15a and 15b of Wierschke are stated to pivot open to discard the trimmings and are not in contact with the product. Accordingly, Wierschke does not teach a stationary longitudinal lower supporting element as claimed, but rather teaches a movable temporary support. Further, the exit conveyor of Wierschke can not act as the claimed longitudinal supporting member since the exit conveyor is also in motion (not stationary) and does not support the products during elimination of the trimmings. As set forth above, Wierschke does not teach that the products advance in contact with and supported during elimination of the

trimmings (1) by contact members of the flexible member and (2) by a stationary longitudinal lower supporting element as claimed.

Further, vacuum box 44 of Wierschke is associated with the pads 28 on the belts which the Examiner relies on for providing the claimed flexible member carrying a series of contact members. However, Wierschke does not have a stationary longitudinal lower supporting element to support a series of products during elimination of trimmings as claimed. Rather, the trims AD and AU are discarded before reaching the exit conveyor and vacuum box 44. Further, the rails 15a and 15b pivot out of the roll-carrying position in the gap 16 so that the trims fall while the rolls are suspended above the gap 16 by the vacuum pads 27 and 28. Therefore, the trims are eliminated without support and in the absence of any lower supporting member.

On pages 4-5 of the official action mailed March 30, 2010, the Examiner acknowledges that Wierschke does not disclose that the rails 15a and 15b are in contact with and support the products during elimination of the trimmings, as claimed. To make up for this deficiency, the Examiner states that the movable rails 15a and 15b of Wierschke could be replaced with a non-movable single rail system (15a) as

taught by Perini. Perini, however, does not teach a non-movable single rail but rather teaches moving conveyor belts 5. Initially applicants submit that the reconstruction asserted by the Examiner is simply based on hindsight since there is no suggestion in either Wierschke or Perini to provide such a substitution in view of the different structures and functions thereof described. Further, Wierschke only teaches discarding trims by removing any lower support from the trims and Perini teaches moving conveyor belts. Thus, it would not be suggested to replace the pivotable rails 15a and 15b of Wierschke by the non-removable moving conveyor belts 5 as taught by Perini.

Applicants' claimed devices also require at least one pusher to insert the series of products with respective trimmings between the movable upper flexible member and the stationary longitudinal lower supporting element. This is not disclosed by Wierschke. Rather, Wierschke describes a pusher mechanism 17 that extends up through the space between rails 15 to advance the products from underneath the belts 24, 25 and 26 which have suction pads 28 to suspend the rolls above the gap 16. Each roll is retained by suction to the moving pads 28 on the belts 24, 25, 26 and carried downstream.

Additionally, independent claims 53 and 54 further claim the device in combination with defined contact members. These claims are also patentable over the references applied for the same reasons as set forth above. Further, neither Wierschke nor Perini disclose or suggest (1) a combination of a series of contact members and a leading contact member which grips at least a first product of a series of products (as claimed in claim 53) or (2) a trailing contact member to grip at least a last product of each series of products (as claimed in dependent claim 54). Further, there is no teaching or suggestion in the applied references to grip a first and/or last product with a gripping member and support products therebetween without gripping action. Accordingly, the combination of Wierschke and Perini does not teach or suggest applicants' device as claimed in independent claim 53 and dependent claim 54.

Accordingly, Wierschke in combination with Perini does not disclose or suggest applicants' claimed devices. As such, independent claims 1, 48-51 and 53 are not rendered obvious within the meaning of 35 U.S.C. §103 over Wierschke in combination with Perini. For the reasons set forth above, Wierschke in combination with Perini does not disclose or suggest the inventions of dependent claims 4-11,

6575/USSN 10/541,874
Group Art Unit 3724

15, 17-19, 24, 26, 47, 52 and 54. Accordingly, applicants respectfully request reversal of the §103 rejection of claims 1, 4-11, 15, 17-19, 24, 26 and 47-54 over Wierschke in combination with Perini.

II. Rejection Of Claims 12, 20-23 And 44 Under
35 U.S.C. §103(a) Over Wierschke In View
Of Perini And Further In View Of Spencer

Dependent claims 12, 20-23 and 44 are patentable over Wierschke in view of Perini and Spencer. Wierschke in combination with Perini does not teach or suggest applicants' claimed devices as set forth above. Spencer is relied on solely for the structure of the mechanical finger grippers described in the dependent claims. Thus, Spencer does not make up for the shortcomings of Wierschke and Perini as set forth above as to the base claims and as set forth hereafter.

A. The Spencer Reference

Spencer discloses a device for handling wound rolls with respect to diverter conveyors using grasping fingers to move a series of wound rolls into a plurality of separate streams. Each pair of fingers grasps an individual roll and moves the roll along a predetermined path.

More particularly, Spencer discloses a roll handling device including a takeaway conveyor 11 consisting of a plurality of spaced apart carriers 19 which are supported between endless chains 20 and 21. The chains 20 and 21 are suitably entrained on sprockets 22 and 23 fixed to a plurality of cross shafts 24 mounted on a machine frame 25. The roll handling apparatus is arranged to handle two rolls R in side-by-side relation. Each roll R is gripped by depending grippers 26. After transfer, the rolls R are gripped by upstanding grippers 27 provided, for example, on the diverter conveyor 16. The diverter conveyor 16 includes endless chains 28 and 29 suitably entrained on sprockets associated with the frame 25. The diverter conveyor 16 includes a plurality of longitudinally spaced apart carriers 30 supported between the chains 28 and 29. Two such carriers 30 and 30' are equipped with the upstanding grippers 27. Each gripper 27 includes three fingers 31, 32 and 33 which are grouped two on one side of a roll and one on the other side.

B. Claims 12, 20-23 And 44 Are Patentable Over The Applied References

Spencer does not make up for the shortcomings of Wierschke and Perini as set forth above. Particularly,

Spencer does not teach or suggest a stationary longitudinal lower supporting elements as claimed. Further, Spencer does not teach or suggest that the series of products are in contact with and supported (1) by the contact members of the flexible member and (2) by the stationary longitudinal lower supporting member as claimed.

Further, Spencer teaches each pair of fingers as grasping an individual roll and moving the roll along a predetermined path. In applicants' claimed device, a pair of end jaws 29X (Figures 8 and 9) are separated by a set of simple resting contact members (Figures 8 and 11). This arrangement provides grasping of a leading product and a trailing product in a series of products and acceleration/deceleration thereof. The remaining resting contact members 29 do not grasp the remaining products of the series, but rather form a simple sliding surface. It is possible with such an arrangement to move the upper flexible member at a lower speed than the products allowing the products to slide along the resting members 29. This allows for the provision of a short flexible member (and therefore a short machine) which is capable of handling logs of variable lengths.

Accordingly, dependent claims 12, 20-23 and 44 are not render obvious within the meaning of 35 U.S.C. §103 over

the combination of Wierschke, Perini and Spencer. Reversal of the §103 rejection of claims 12, 20-23 and 44 is requested.

III. Supporting Law

The Supreme Court recently stated that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741, 82 USPQ2d 1385 (2007). "[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." Id. In identifying a "reason," the Court cautioned that "the analysis need not seek out precise teachings [in the prior art] directed to the specific subject matter of the challenged claim." Id. Rather, courts must also "look to the interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art." KSR Int'l, 127 S.Ct. at 1740-41.

Ultimately, however, the analysis must be explicit. In fact, "'[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" KSR Int'l, 127 S.Ct. at 1741, citing In re Kahn, 441 F.3d 977, 988; 78 USPQ2d 1329 (Fed. Cir. 2006).

A rejection under 35 U.S.C. §103 clearly, therefore, must rest on a firm factual basis and deficiencies in the factual basis cannot be supplied by resorting to speculation or unsupported generalities. In re Freed, 425 F.2d 785, 165 USPQ 570 (CCPA 1970).

Further, the mere fact that the prior art can be modified does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Gordon, 733 F.2d 900, 902; 221 USPQ 1125 (Fed. Cir. 1984). Once applicants' solution to a problem is disclosed, it is easy to see how prior references can be modified and manipulated to produce the claimed invention. The change can appear simple and by hindsight seem obvious. However, as stated by the Court in In re Sporck, 133 USPQ 360, 363 (CCPA 1962), the simplicity of new inventions is oftentimes the very thing that is not obvious before they are made.

6575/USSN 10/541,874
Group Art Unit 3724

The Court goes on to cite as support In re Osplack, 195 F.2d 921, 93 USPQ 306, 308 (CCPA 1952) stating -

"We think this case is one of that category of inventions which, when viewed after disclosure and explanation by an applicant, seem simple and such as should have been obvious to those in the field. Yet this does not necessarily negative invention or patentability. [citations omitted]. Indeed, simplicity may even be some evidence of invention. [citations omitted]."

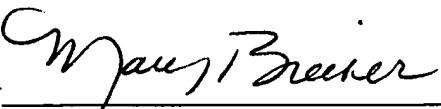
Conclusion

Based on the above, applicants respectfully submit that claims 1, 4-12, 15, 17-24, 26, 44 and 47-54 are not rendered obvious to one skilled in the art based on the combination of applied references as set forth above, and that the appealed claims are patentable within the meaning of 35 U.S.C. §103. Reversal of each of the §103 rejections is respectfully requested.

6575/USSN 10/541,874
Group Art Unit 3724

Respectfully submitted,

ANGELO BENVENUTI ET AL

By 
Mary J. Breiner, Attorney
Registration No. 33,161
BREINER & BREINER, L.L.C.
P.O. Box 320160
Alexandria, Virginia 22320-0160

Telephone (703) 684-6885

Attachments - Claims Appendix
- Evidence Appendix
- Related Proceedings Appendix
- \$540.00 Appeal Brief Fee



TheAppealed Claims:

1. A device to eliminate trimmings or scraps from series of products comprising an input member for the products; an output member for the products; at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another, a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall; at least one stationary longitudinal lower supporting element of the products, parallel to said movable upper flexible member and bridging said input member and said output member, an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to said output member; at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element; wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every

time to a level of tail and head trimmings of two consecutive series of products.

4. Device as claimed in claim 1, wherein said continuous flexible member has at least one second contact member designed to grasp at least a first product of each series and make the first product advance.

5. Device as claimed in claim 1, wherein at least some of the contact members are provided with a contact surface for the products having a low friction coefficient, to allow said products to slide with respect to said at least one longitudinal supporting element.

6. Device as claimed in claim 1, wherein said flexible member is controlled at a variable speed to accelerate at least a last product of each series with respect to the pusher therebehind.

7. Device as claimed in claim 1, wherein said flexible member is controlled at a variable speed to accelerate and, optionally, subsequently decelerate, at least a first product of each series with respect to a subsequent product.

8. Device as claimed in claim 1, wherein said flexible member is controlled to advance at a lower speed or to stop during an interval of time between arrival of a first product and arrival of a last product of each series,

during said interval of time the products being pushed by said pusher and sliding along the flexible member resting on the contact members.

9. Device as claimed in claim 1 or 4, wherein one or more of said contact members disposed at each end of the series of contact members carried by said flexible member, adjacent to said portion of the flexible member devoid of contact members, can be operated to have a grasping effect on the products in contact therewith.

10. Device as claimed in claim 1 or 4, wherein said contact members designed to grasp said products are mounted movable, with respect to the flexible member which carries the contact members, at least in a direction essentially orthogonal to said flexible member.

11. Device as claimed in claim 1 or 4, wherein the contact members designed to grasp the products have a movable portion.

12. Device as claimed in claim 11, wherein a fixed control profile acts on said movable portions, an elastic element being provided to hold each of said movable portions in contact with said fixed control profile.

15. Device as claimed in claim 1, wherein said flexible member is laterally staggered with respect to said longitudinal supporting element.

17. Device as claimed in claim 1, wherein said flexible member is controlled to be accelerated synchronously with a position of said pusher, to distance a last product of each series from the pusher therebehind.

18. Device as claimed in claim 1, wherein said flexible member is controlled to be accelerated synchronously with a position of said pusher, to distance a first product of each series at least temporarily from a subsequent product.

19. Device as claimed in claim 1, wherein said flexible member includes a pair of parallel chains, one of said chains being provided with a plurality of intermediate contact members, said intermediate contact members being arranged in a laterally staggered position with respect to said longitudinal supporting element.

20. Device as claimed in claim 1, wherein said first contact member designed to grasp at least the last product of each series of products includes two shoes and means are provided to control a grasping motion of said shoes.

21. Device as claimed in claim 4, wherein said second contact member designed to grasp at least the first product of each series of products includes two shoes and means are provided to control a grasping motion of said shoes.

22. Device as claimed in claim 20, wherein the two shoes of said first contact member are controlled by a fixed cam profile, which controls a closing motion of said shoes.

23. Device according to claim 20, wherein said flexible member includes a pair of parallel chains, one of said chains being provided with a plurality of intermediate contact members, said intermediate contact members being arranged in a laterally staggered position with respect to said longitudinal supporting element and wherein each shoe of said first contact member is carried by a respective one of said chains.

24. Device as claimed in claim 4, wherein at least one of said first contact member or said second contact member designed to grasp said products includes jaws- or pliers-shaped grasping members.

26. Device as claimed in claim 1, wherein said products are rolls obtained from cutting a log.

44. Device according to claim 21, wherein said flexible member includes a pair of parallel chains, one of said chains being provided with a plurality of intermediate contact members, said intermediate contact members being arranged in a laterally staggered position with respect to said longitudinal supporting element and wherein each shoe of said second contact member is carried by a respective one

of said chains.

47. Device according to claim 48, wherein said at least one of said contact members is structured to cyclically co-act with an activation member to mechanically grip and release said at least a last product of said series of products.

48. A device to eliminate trimmings or scraps from series of products comprising an input member for the products; an output member for the products; at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another, a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall; at least one stationary longitudinal lower supporting element of the products, parallel to said movable upper flexible member and bridging said input member and said output member, an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to said output member; at least one pusher to insert the series of products with respective trimmings between said flexible member and said

longitudinal lower supporting element; wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products; and wherein at least one of said contact members is constructed and arranged to cyclically mechanically grip and release at least a last product of said series of products.

49. A device to eliminate trimmings or scraps from series of products comprising at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another, a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall; at least one stationary longitudinal lower supporting element of the products, parallel to said movable upper flexible member, an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to an output member; at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower

supporting element; wherein said flexible member is controlled with a cyclically variable speed such that every time a new series of products is introduced into the device said section of said flexible member devoid of contact members is caused to be phased with positioning of tail and head trimmings of two consecutive series of products.

50. A device to eliminate trimmings or scraps from series of products comprising at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another, a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall; at least one stationary longitudinal lower supporting element of the products, parallel to said movable flexible member, an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to an output member; at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element; wherein said flexible member is controlled with a cyclically variable speed such that every

time a new series of products is introduced into the device said section of said flexible member devoid of contact members is caused to be phased with positioning of tail and head trimmings of two consecutive series of products; and wherein at least one of said contact members is constructed and arranged to cyclically mechanically grip and release at least a last product of said series of products.

51. A device to eliminate trimmings or scraps from series of products comprising an input member for the products; an output member for the products; at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another, a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall; at least one longitudinal stationary lower supporting element of the products, parallel to said movable upper flexible member and bridging said input member and said output member, an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element to an output member; at least one pusher to insert the series of products with respective trimmings between said

flexible member and said longitudinal lower supporting element; wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products.

52. A device according to claims 1, 48, 49, 50 or 51, wherein each contact member of said series of contact members is structured to press against an underlying product in said series of products, and said device further includes a control device for selectively accelerating and decelerating said flexible member and thereby said contact members.

53. A device to eliminate trimmings or scraps from series of products comprising an input member for the products; an output member for the products; at least one continuous movable upper flexible member carrying a series of contact members for the products aligned with one another, a section of said movable upper flexible member being devoid of said contact members to allow trimmings to fall, said movable upper flexible member having a leading contact member structured to grip at least a first product of each series of products and advance the first product from the input member to the output member, said leading contact member being adjacent to said series of contact

members; a control device in relation to said movable upper flexible member which controls said leading contact member; at least one stationary longitudinal lower supporting element of the products positioned parallel to said movable upper flexible member and bridging said input member and said output member, said movable upper flexible member and said stationary longitudinal lower supporting element being essentially aligned such that the series of products advance in contact with and supported during elimination of said trimmings (1) by the contact members of the flexible member and (2) by the longitudinal lower supporting element; at least one pusher to insert the series of products with respective trimmings between said flexible member and said longitudinal lower supporting element and towards said output member; wherein said flexible member is controlled with a cyclically variable speed to carry the section thereof devoid of contact members every time to a level of tail and head trimmings of two consecutive series of products which said upper flexible member contacts.

54. Device as claimed in claim 53, further comprising a trailing contact member structured to grip at least a last product of each of said series of products, wherein said series of contact members are arranged between said leading contact member and said trailing contact member, and said

section of the movable upper flexible member devoid of contact members is present between said trailing contact member and said leading contact member, wherein said control device also controls said trailing contact member.

* * * * *

6575/PCT/USSN 10/541,874
Group Art Unit 3724

E V I D E N C E
A P P E N D I X
-1-

None.

* * * * *

6575/PCT/USSN 10/541,874
Group Art Unit 3724

R E L A T E D
P R O C E E D I N G S
A P P E N D I X

-1-

None.

* * * * *